

L-AW Series

HYUNDAI WIA Turning Center for AL Wheel Cutting





Technical Leader

The Turning Center L-AW Series, designed by Hyundai WIA with years of expertise and the latest technology, is the best performing machine in the AL Wheel automation line.

L500AW

Swing Over the Bed	mm(in)	Ø750 (29.5")
Max. Turning Length	mm(in)	710 (28")
Wheel Size	inch	17"
Max. Wheel Size	inch	20"
Spindle Speed	r/min	3,000
Spindle Output	kW(HP)	37/30 (49.6/40.2)
Travel (X/Z)	mm(in)	355:65+290 (14":2.6"+11.4") / 720 (28.3")
No. of Tools	EA	12

L600AW / 600AW MF

Swing Over the Bed	mm(in)	Ø850 (33.5")
Max. Turning Length	mm(in)	710 (28")
Wheel Size	inch	17"
Max. Wheel Size	inch	24"
Spindle Speed	r/min	3,000
Spindle Output	kW(HP)	37/30 (49.6/40.2) 30/22 (40.2/29.5)
Travel (X/Z)	mm(in)	370:20+350 (14.6":0.8"+13.8") / 720 (28.3")
No. of Tools	EA	12

LV800RAW / 800LAW

Swing Over the Bed	mm(in)	Ø890 (35")
Max. Turning Length	mm(in)	Ø800 (31.5")
Wheel Size	mm(in)	800 (31.5")
Max. Wheel Size	inch	25"
Spindle Speed	r/min	2,000
Spindle Output	kW(HP)	45/37 (60.3/49.6)
Travel (X/Z)	mm(in)	440/800 (17.3"/31.5")
No. of Tools	EA	12

LV800AW-TT

Swing Over the Bed	mm(in)	Ø760 (29.9")
Max. Turning Length	mm(in)	650 (25.6")
Wheel Size	inch	22.5"
Max. Wheel Size	r/min	3,000
Spindle Speed	kW(HP)	55 (73.8)
Spindle Output	ft·m(lbf·ft)	495 (365.1)
Travel (X/Z)	mm(in)	420/650 (16.5"/25.6")
No. of Tools	EA	2×8

AL Wheel Machining
CNC Lathes

L-AW Series



LV800AW-TT – Max. AL Wheel processing capacity 22.5"

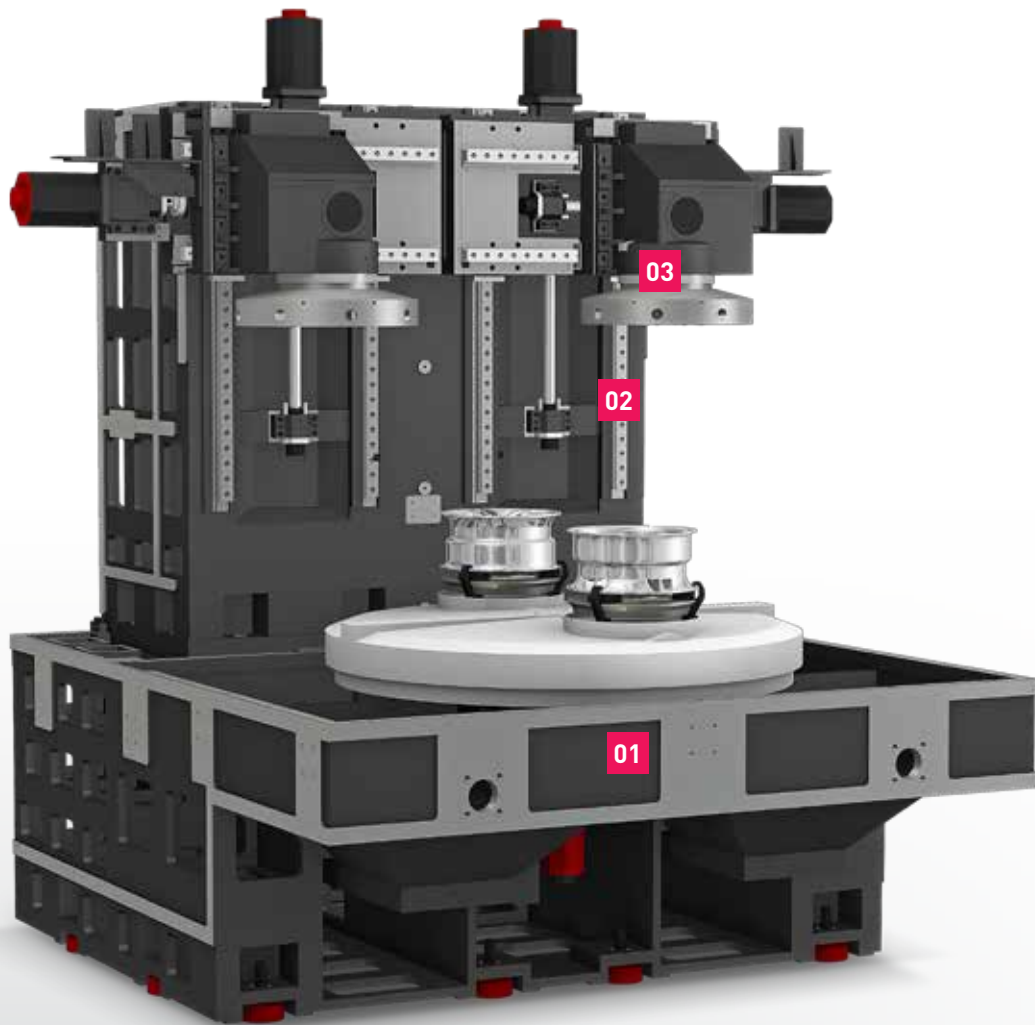
L500AW/600AW – Max. AL Wheel processing capacity 24" (L600AW)

LV800RAW/LAW – Max. AL Wheel processing capacity 25"

01
L-AW Series

LV800AW-TT Basic Structure

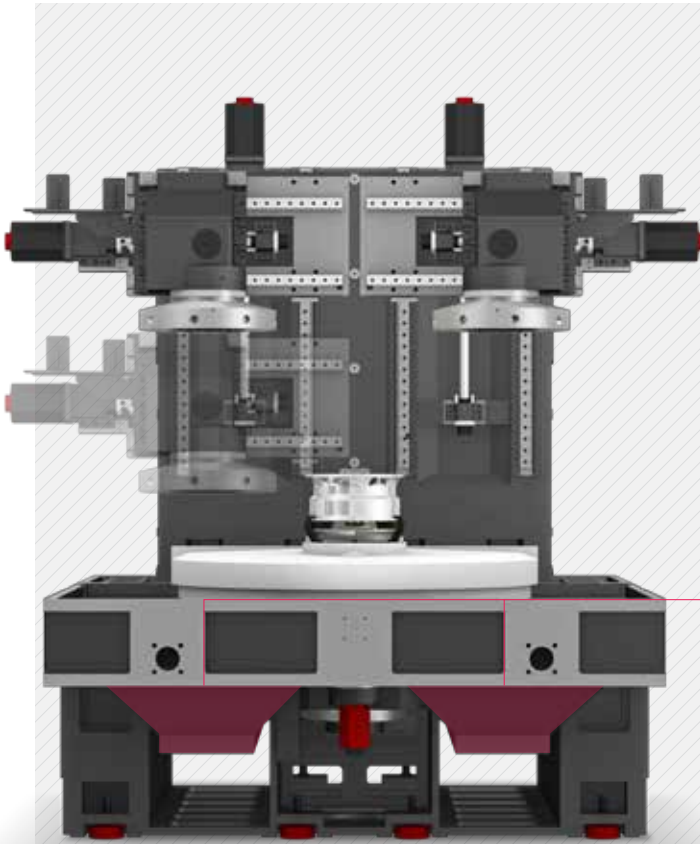
Powerful Cutting Capability, 22.5inch AL Wheel Cutting
2 Turret CNC Vertical Turning Center



Reduction of non-cutting time by fast rapid speed

- ⊙ **Rapid Traverse Rate** (X/Z axis) : **30/30** m/min (**1,181/1,181** ipm)
- ⊙ **Travel** (X/Z axis) : **420/650** mm (**16.5"/25.6"**)
- ⊙ **Max. Turning Dia.** : **Ø650** (**25.6"**)
- ⊙ **Max. Turning Height** : **650** mm (**25.6"**)

Basic Structure



01 Chip Disposal

For smooth chip disposal, the size of chip outlet on the bed is enlarged to 350mm(13.8") by 856mm(33.7") and installed with the steep angle of 45 degrees so that it can easily handle a large amount of chips.



02 Roller Type LM Guideway

Each travel axis is designed with highly rigid roller type LM guideway which enables a rapid traverse rate of 30m/min(1,181ipm). The ball screw has a diameter of 40mm(1.6") and produces powerful thrust for heavy duty cutting.



VDI 2 Turret

03

LV800AW-TT is designed with 2 turrets. Machining inner and outer surfaces of the wheel can be done simultaneously, reducing the machining time by 20% compared to that of 1-turret machine.

- **Tool Size** (OD/ID) :
□ 25×25/Ø40 mm (□ 1"×1"/Ø1.6")
- **Turret Type** : **VDI50** (Octagon 2 Turret)

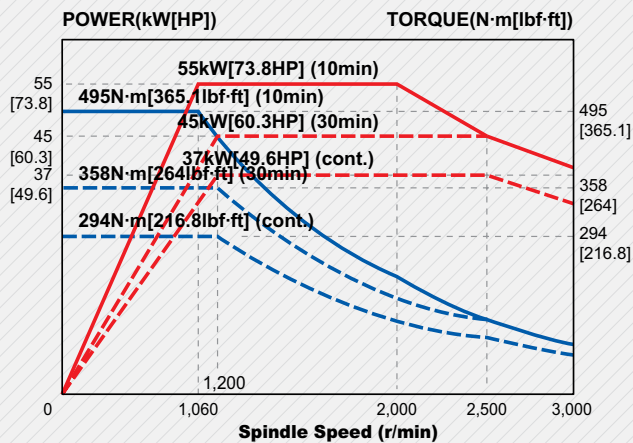
High-Precision Spindle

Long Lasting High Accuracy & Excellent Performance
Vertical Turning Center



Built-In Spindle

For best quality products, built-in spindle minimizes vibration and heat and provides fast acc/deceleration.



- SP. Speed : 3,000 rpm
- SP. Motor : 55 kW (73.8 HP)
- SP. Torque : 495 N·m (365.1 lbf·ft)

ACC (Automatic Chuck Changer)

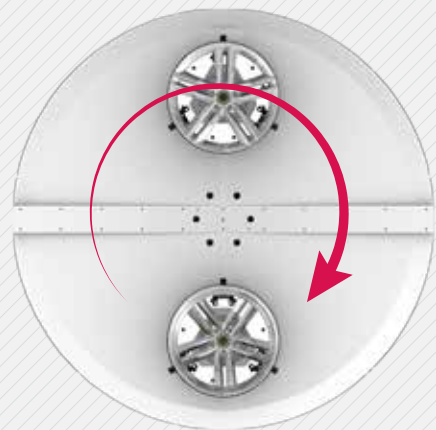
LV800AW-TT has the automatic chuck changer with high-speed 180-degree index rotation. This improves productivity since inner and outer side of the wheel can be processed at one machine.



Special Chuck

Finger chuck provides stable and precise processing ability of aluminum wheel under at high speeds.

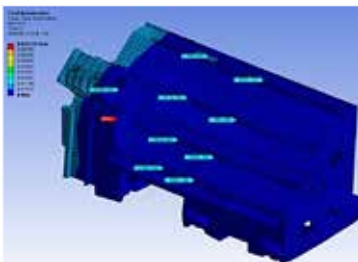
- Max. Wheel Size : 22.5"



02 L500/600AW Basic Structure

L-AW Series

The Best Productivity
Max 20" / 24" Wheel CNC Turning Center



01

Stabilized Bed Design

L500AW/600AW has a stabilized bed design through FEM analysis, which minimizes vibration during high speed machining and ensures superior surface finish.

Box Guideway

Box guideways provide unsurpassed long term rigidity and accuracy, even during heavy duty cutting.



02

Main Spindle

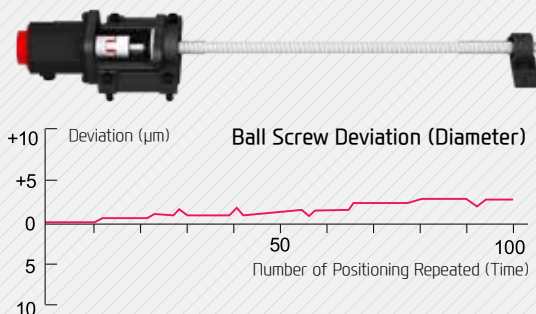
The main spindle has become sturdier by enlarging the diameter and thickness. Rigidity and accuracy are maintained by adoption of high precision angular ball bearing.



03

Ball Screw

Travel is stabilized by fastening both ends of the ball screw, the double anchored method. In particular, a large diameter ball screw with proper preload reinforces rigidity and resistance to thermal displacement.



Turret

The turret, designed for machining aluminum wheels, enables a wide variety of aluminum wheel machining and improves productivity.



04



L600AW MF : 600/353 N·m (442.5/260.4 lbf·ft)

High Precision Spindle

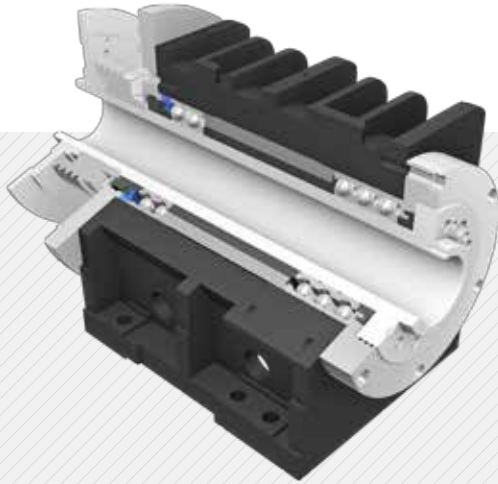
Long Lasting High Accuracy & Excellent Performance
CNC Turning Center



Special Chuck

Finger chuck provides stable and precise processing ability of aluminum wheel under high speed.

- Max. Wheel Size L500AW : 20" L600AW : 24"
- Recommendation Wheel Size : 17"



Main Spindle

Rigidity is significantly improved by enlarging the spindle diameter and thickness. Also, accuracy is increased due to the use of highly reliable bearings. This improves durability and provides a high quality surface finish on every machined part.

The gearless spindle is designed to minimize spindle noise and ensure minimal thermal growth at high speed or during heavy duty cutting.

L600AW MF (Mirror Finishing) **OPTION**

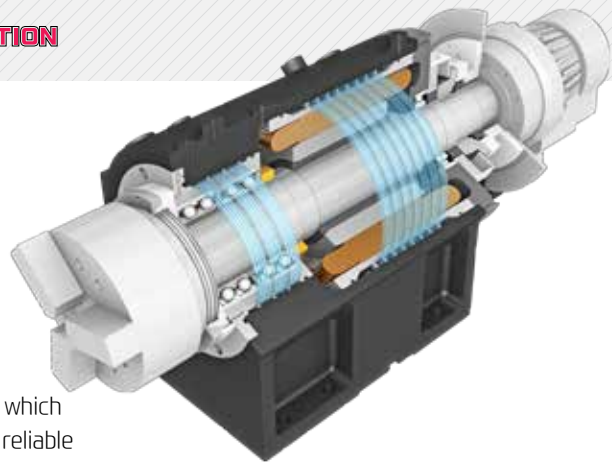
Built-In Spindle

An important factor in cutting optimal aluminum wheels is to minimize vibration.

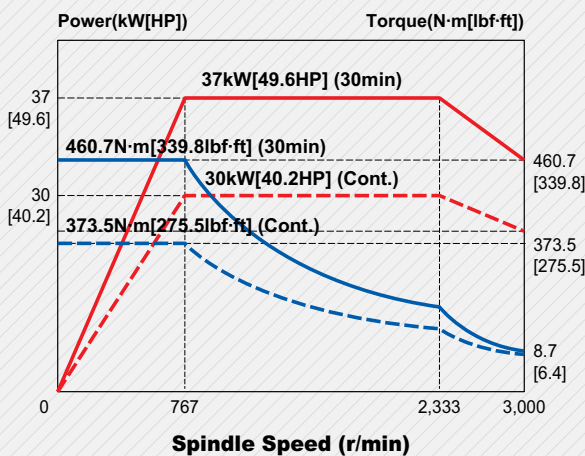
Built-in spindle option provides spindle cooling to minimize thermal displacement inside of spindle.

Spindle Oil Cooling

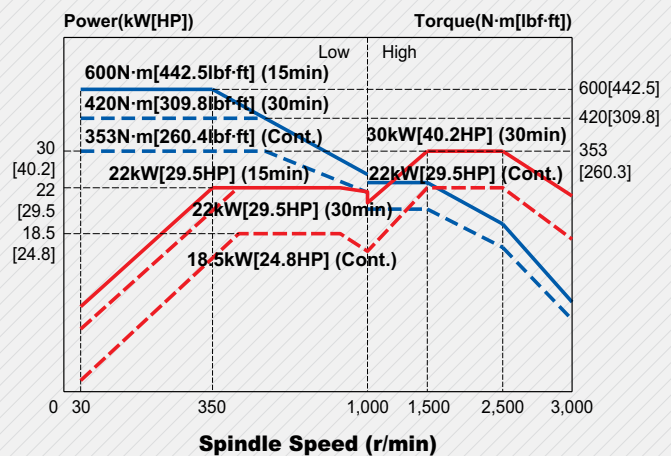
The spindle cooling system minimizes thermal displacement which can happen during lengthy machine operations, and offers reliable machining based on the thermal stability.



3,000rpm Belt

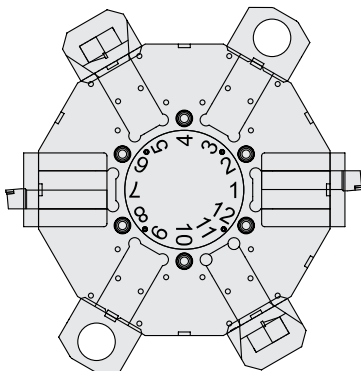
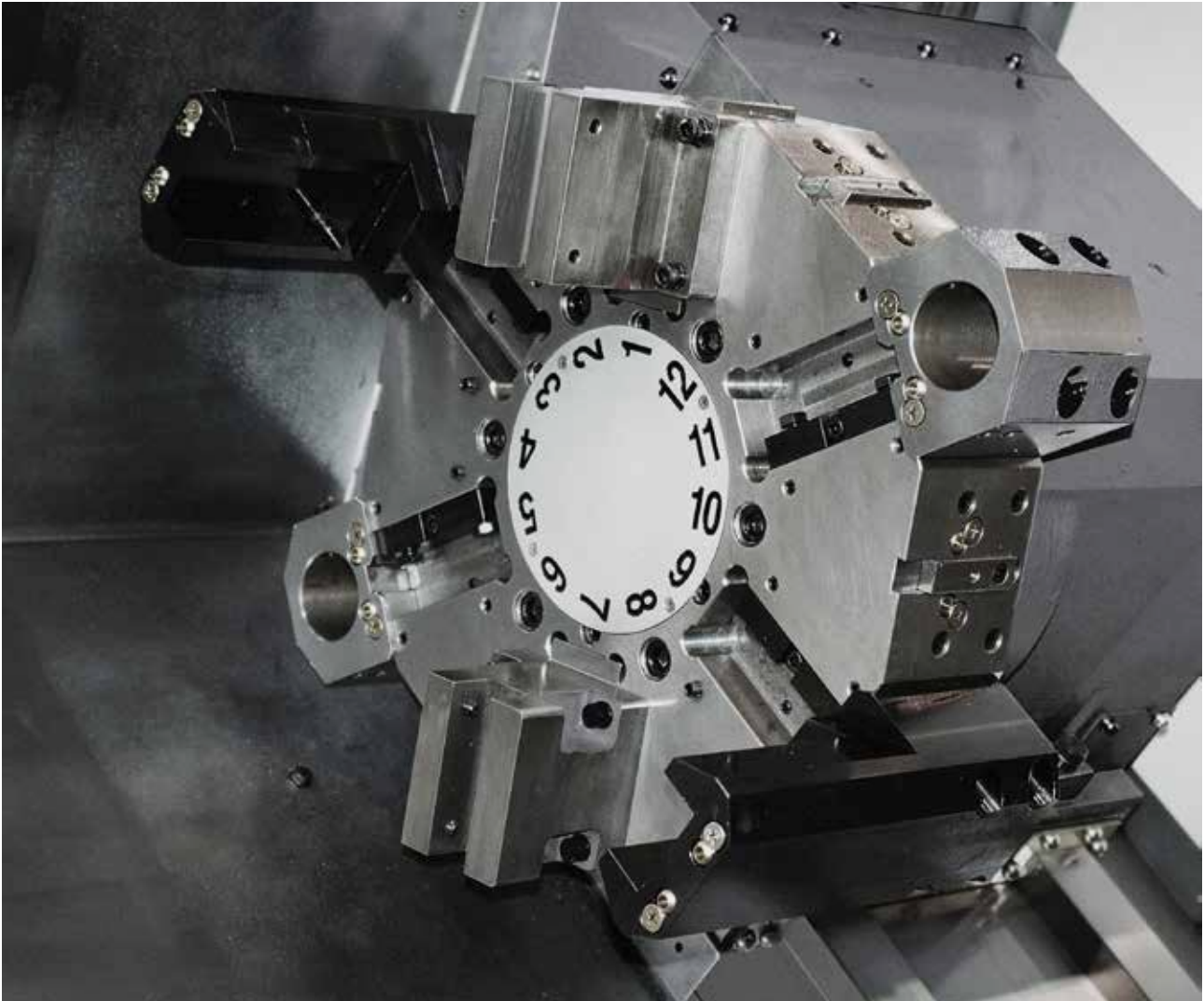


3,000rpm Built-in **OPTION**



Servo Turret

High speed, High Accuracy, Highly Reliable
Servo Turret



Turret

The turret, designed for machining aluminum wheels, enables a wide variety of aluminum wheel machining and improves productivity. Also, the L500AW has a maximum diameter of 20" while the L600AW has a maximum diameter of 24". This variety enables users to process diverse types of wheels.

- Number of Tools : **12** EA
- Tool Size(I.D) : **Ø63 (Ø2.5")**
- Tool Size(O.D) : **□32 (□1.3")**
- Indexing Time : **0.3** sec/step

Machining Capability (Mirror Finishing)

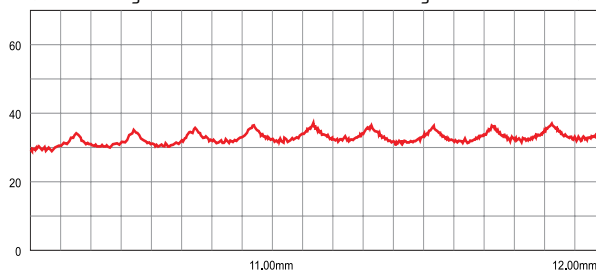


Machining Ability

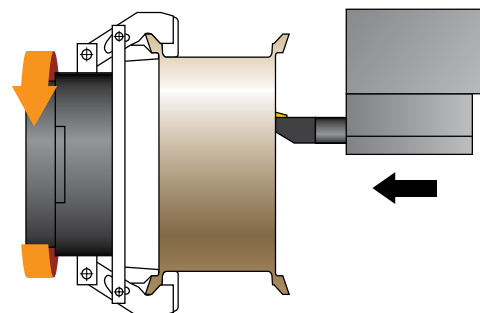
Surface roughness



Surface Curve μm
(Vertical Magnification : $\times 500.00$ Horizontal Magnification $\times 500.00$)



Mirror Finishing



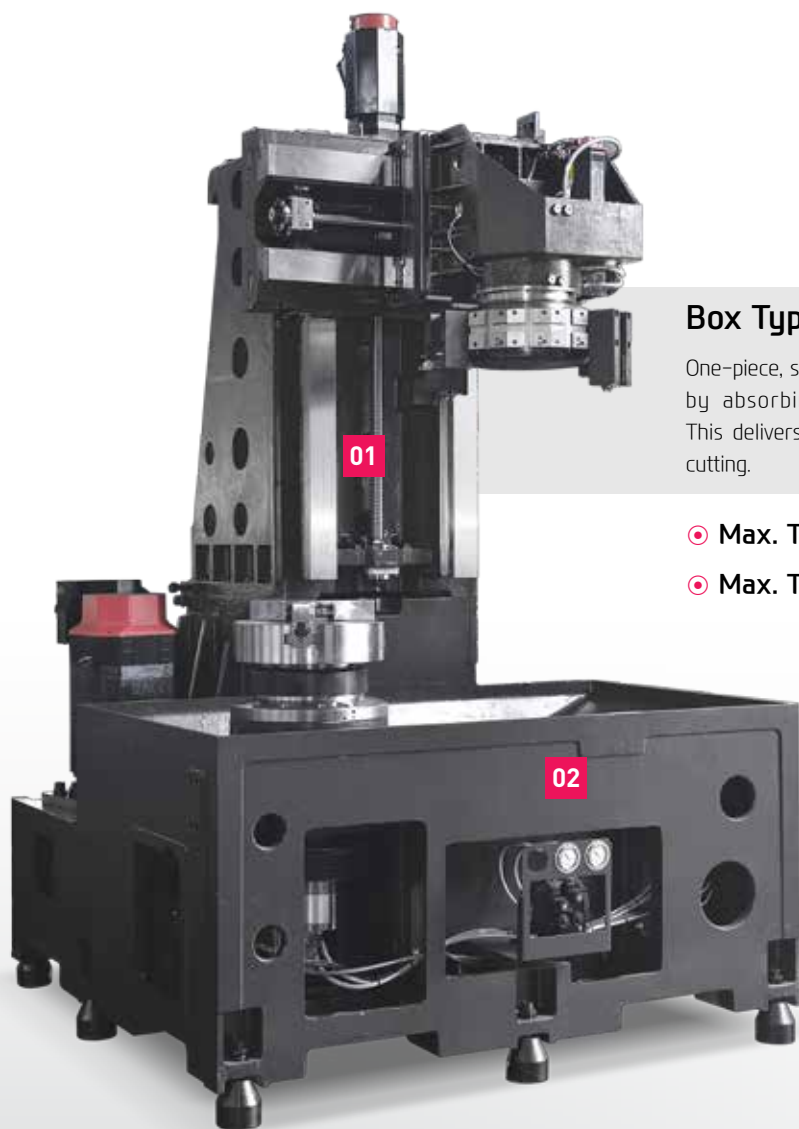
L600AW MF - Cutting Test

Product type	K5 AL Wheel (18")
Tool	Inner Holder
Insert	Diamond R1.5 (Artificial)
Rotation	1,500 r/min
Feed speed	0.2mm/rev
Type of Cutting	Rough Cutting/Accurate Cutting : 0.1mm
Coolant	5%
Cutting time	1' 11"

n3
L-AW Series

LV800RAW Basic Structure

Powerful Cutting Capability, 22" Wheel
CNC Vertical Turning Center



Box Type Column

One-piece, square type column offers the ultimate stability by absorbing vibration and eliminating distortion. This delivers superior precision even during heavy duty cutting.

- ◉ Max. Turning Dia. : **Ø800 (31.5")**
- ◉ Max. Turning Length : **800 mm (31.5")**

CNC Vertical Turning Center for Heavy Duty Cutting

- ◉ Rapid Traverse Rate (X/Z axis) : **20/20** m/min (**787/787** ipm)
- ◉ Travel (X/Z axis) : **440/800** mm (**17.3"/31.5"**)
- ◉ SP. Speed : **2,000** rpm ◉ SP. Motor (Max./Cont.) : **45/37** kW (**60.3/49.6** HP)
- ◉ SP. Type : **Belt** ◉ SP. Torque (Max./Cont.) : **530/436** N·m (**390.9/321.6** lbf·ft)

Basic Structure



Right/Left Machine Structure

LV800 provides Right/Left sided structure depending on the location of the main spindle and the tool rest, which makes it possible to facilitate optimal factory automation.

Convenient Maintenance Structure

User convenience has significantly enhanced due to positioning utility units in front of the machine for easier application and maintenance.
(Utility units : Hydraulic, Lubricating oil)

Box Guideway

01

All axes of the LV800RAW feature box guideways. Box guideways provide unsurpassed long term rigidity and accuracy, even during heavy duty cutting.



Chip Influx Protection

LV800RAW has protective measures to keep chips and other debris from entering the main spindle, ensuring long term high precision performance.

Chute Structure

The slope type bed design improves chip and cutting oil disposal and chute structure minimizes thermal displacement.

02

High-Precision Spindle

Long Lasting High Accuracy & Excellent Performance
Vertical Turning Center





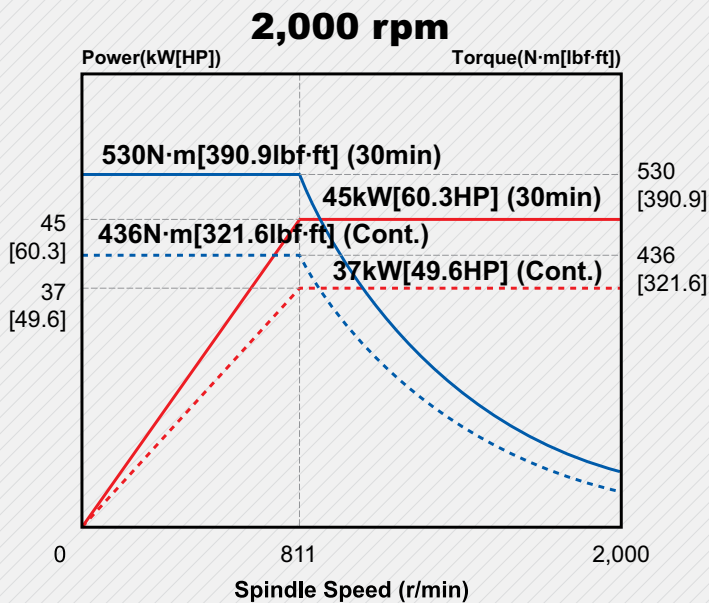
Main Spindle

The spindle is specially designed for machining aluminum wheels for commercial vehicles. High torque spindle motor with 45kW (60HP) is adopted to produce 530N·m(390lbf·ft) torque in 500~1,200rpm range, which is optimal for aluminum wheel cutting.

Step Chuck Clamping System

Step chucking system offers low pressure for heavy duty cutting or high pressure for precision cutting. This is provided as standard feature to enhance machining performance with minimal material deformation.

Spindle acc/decelation time 40% reduced



Special Chuck

Finger chuck provides stable and precise processing ability of aluminum wheel under at high speeds.

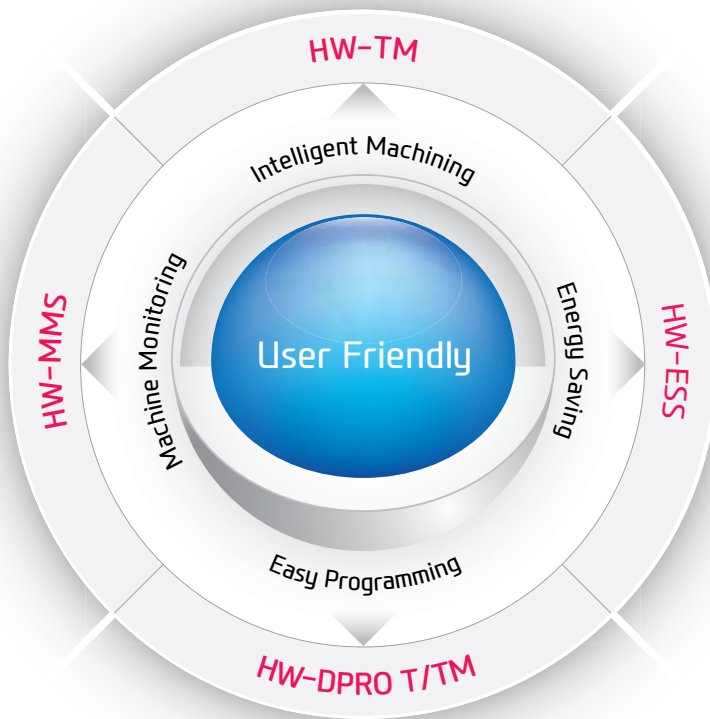
⊙ Max. Wheel Size : 25"



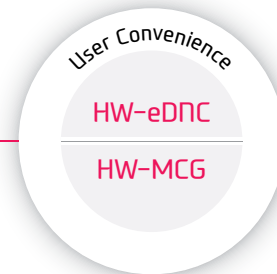
n4
L-AW Series

Smart System

Software for Smart Operating
and Machining



HYUNDAI WIA Smart System
for CNC Turning Center



Smart Factory HW-MMS (HYUNDAI WIA-Machine Monitoring System)

A brand new manufacturing machine by HYUNDAI WIA, HW-MMS is a unique software capable of monitoring the operation status of manufacturing machines in factories, a smart solution to improve manufacturing conditions of customers.



- 01 Real-time monitoring of machine operation status (Cloud)
- 02 History and statistics of machine operation (Cloud)
- 03 History and statistics of alarm occurrence (Cloud)
- 04 History and statistics of work count (Cloud)
- 05 Remote diagnosis (Remote)

Faster processing and enhanced accuracy in are possible through the **HYUNDAI WIA Smart System**. The user friendly software and equipment monitoring of the Smart System maximizes productivity.



HW-eDNC

HYUNDAI WIA ethernet
Direct Numerical Control

This software allows transmittion of NC data between PC and a machine's CNC. The processing programs can be managed on the PC through the ethernet or serial communication.



HW-MCG

HYUNDAI WIA
Machine Guidance

Software that offers operation, maintenance, management monitoring and various user friendly features.



HW-TM

HYUNDAI WIA
Tool Monitoring

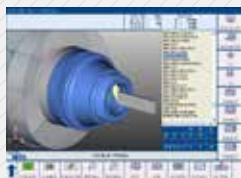
A tool monitoring software which analyzes the load of the spindle motor to determine and monitor possible damage of tools.



HW-ESS (Standard)

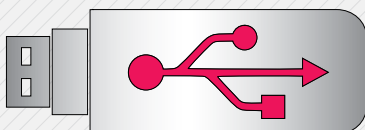
HYUNDAI WIA
Energy Saving System

An environmental friendly software that reduces the unnecessarily wasted standby power waiting for an operation.



HW-DPRO T/TM HYUNDAI WIA Dialogue PROgram Turn/TurnMill

Using a dialogue method, this software makes it easy to work out a program for a lathe processing operation with complicated configurations. (Can be installed on a PC.)



USB Port

Convenience is increased when inputting and outputting program. The USB port is available in addition to the former input output methods such as CF memort card and LAN.

n5
L-AW Series

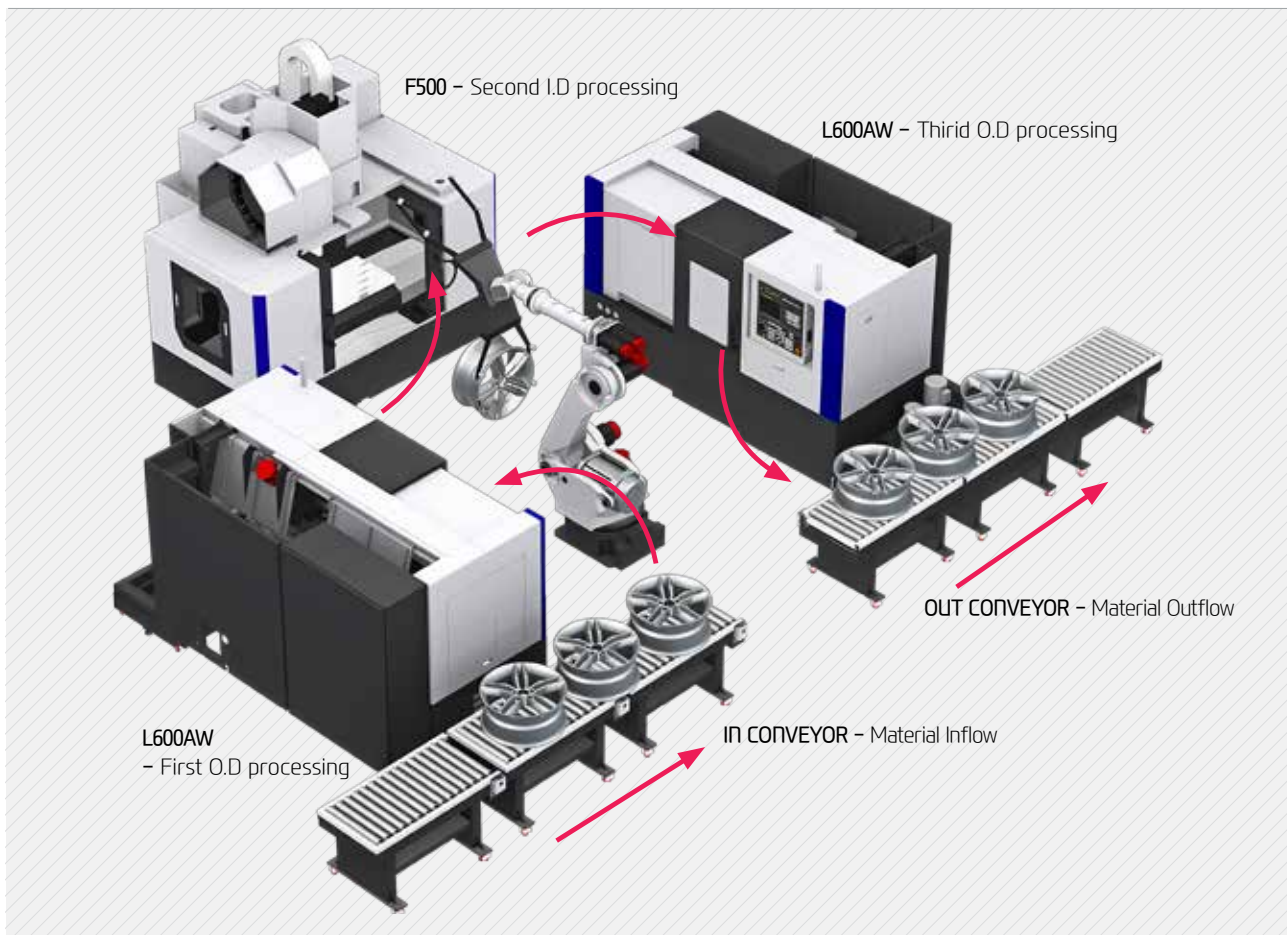
Automatic System

Various Devices for User Convenience



L600AW Automation Consists

L600AW (2EA) + F500 + ROBOT (6AXIS) + IN CONVEYOR + OUT CONVEYOR



Robot



Hyundai WIA is able to deliver high quality factory automation system through the precision technologies accumulated during its long history of machine tool manufacturing, and the operation capability acquired from the automobile parts manufacturing business.

Conveyor



For increasing the efficiency of unattended manufacturing, Hyundai WIA utilizes the conveyor to deliver work in and out during machining process.

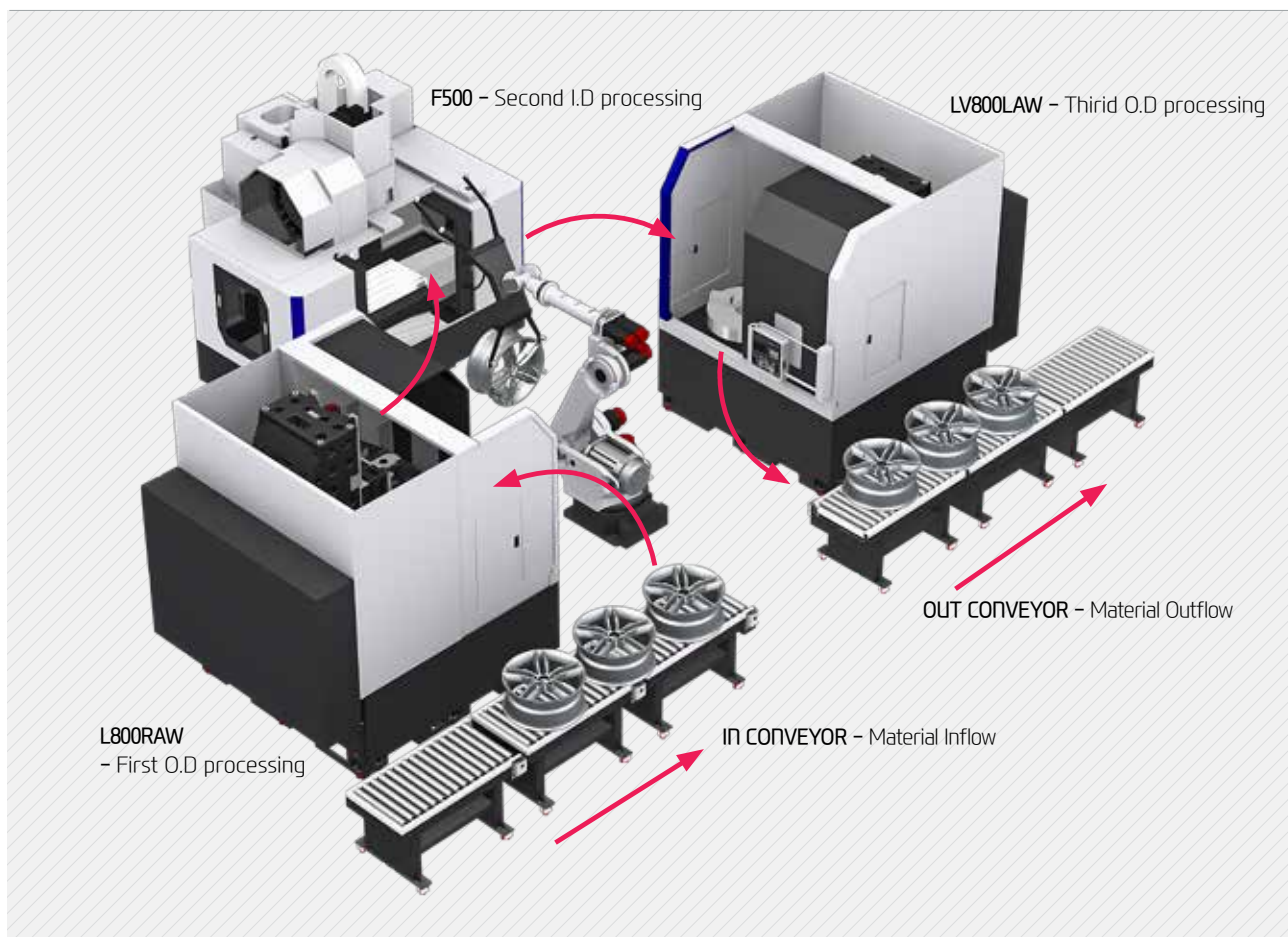
Workholding



Special finger chuck is applied to the L-AW Series, which achieves the stability of machining even under high speed turning conditions. This chuck ensures fast and accurate machining capability.

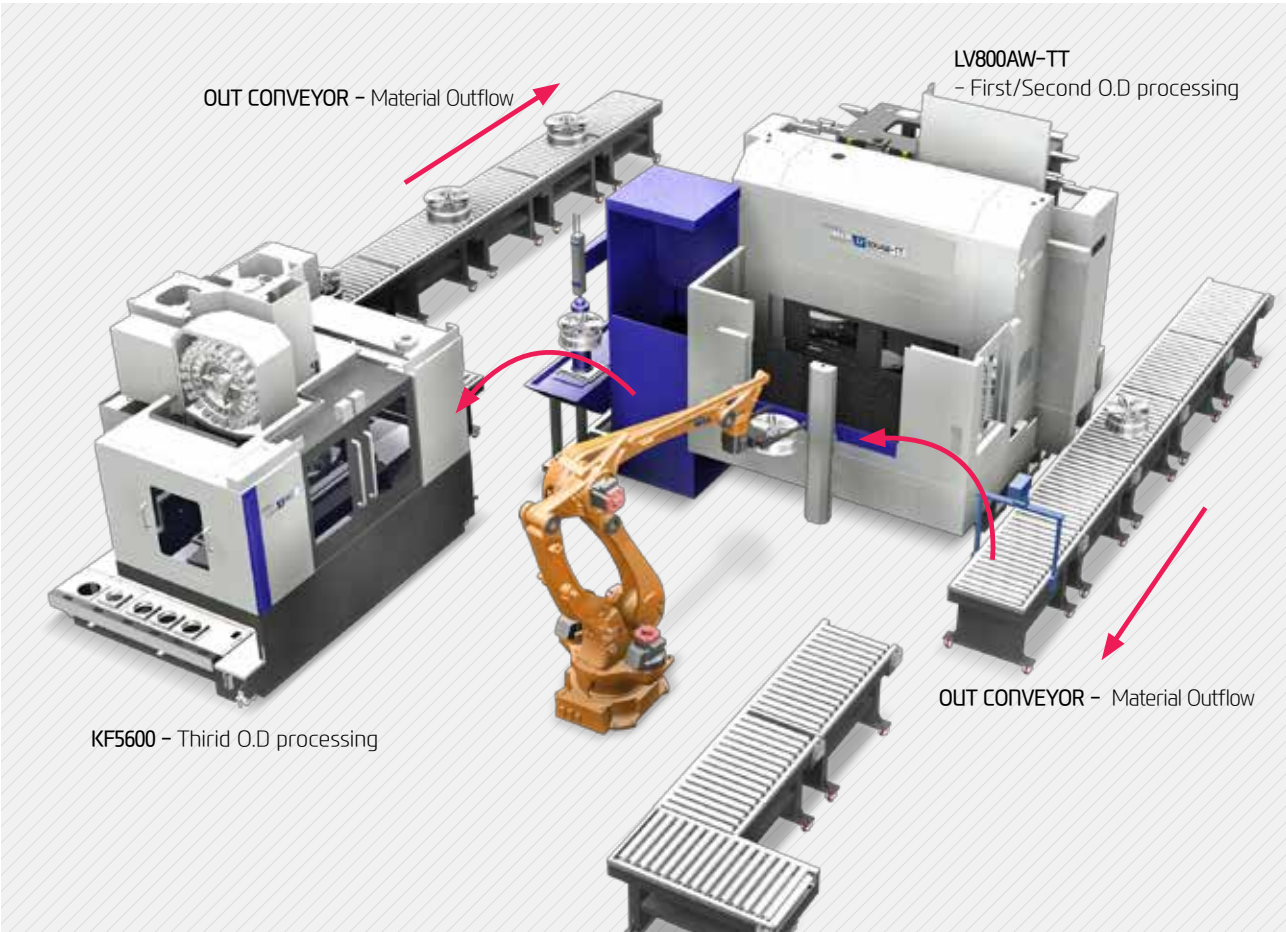
LV800RAW Automation Consists

LV800RAW/LAW + F500 + ROBOT (6AXIS) + IN CONVEYOR + OUT CONVEYOR

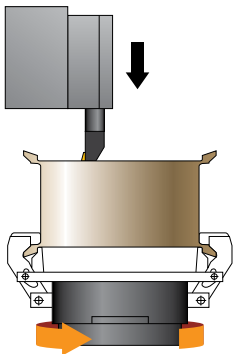


LV800AW-TT Automation Consists

LV800AW-TT + KF5600 + ROBOT (4-AXIS) + IN/OUT CONVEYOR + VISION SYSTEM + AIR BLOW + MEASURING DEVICE



Surface roughness



LV800AW-TT Cutting Test

Product type	19×7J (Ø487.4×178)
speed	1,800 r/min
Feed speed	Max. 0.7mm/rev
Cutting depth	Max. 3.0mm
Coolant	Density 6%
Cutting Time	119 sec

Outline/Gloss/I.D & O.D Matching : Fine

SPECIFICATIONS

Standard & Optional

Spindle		L500AW	L600AW
Main Spindle Hollow Chuck 3 Jaw	18"	○	○
Main Spindle Solid Chuck 3 Jaw	15"	○	○
Standard Soft Jaw (1set)		○	○
Chuck Clamp Foot Switch		●	●
2 Steps Hyd. Pressure Device		-	-
Spindle Inside Stopper		-	-
5" Index		☆	☆
Cs-Axis (0.001")		☆	☆
Chuck Open/Close Confirmation Device		○ (CE:●)	○ (CE:●)
2 Steps Chuck Foot Switch		☆	☆
Special Chuck For AL Wheel	Max 20" Wheel	☆	☆
	Max 24" Wheel	-	☆
Turret			
Inner Base Holder (Wheel Turning)	2EA	●	●
Out Dia Base Holder (Wheel Turning)	2EA	●	●
Face Tool Holder (Wheel Turning)	2EA	●	●
Mill Turret		-	-
Boring Bar Sleeve		●	●
Drill Socket		-	-
U-Drill Holder		-	-
U-Drill Holder Sleeve		-	-
O.D Extension Holder	For Out-Dia	☆	☆
Tail Stock & Steady Rest			
Manual Tail Stock		-	-
Programmable Tail Stock		-	-
Manual Type Hyd. Steady Rest		-	-
Standard Live Center		-	-
High Precision Live Center		-	-
2 Steps Tail Stock Pressure System		-	-
Quill Forward/Reverse Confirmation Device		-	-
Tail Stock Foot Switch		-	-
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Through Spindle Coolant (Only for Special Chuck)		☆	☆
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		-	-
Turret Air Blow		☆	☆
Air Gun		○	○
Through Spindle Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	1.5Bar (21.7psi)	●	●
	6Bar (87psi)	-	-
Shower Type Coolant Device		●	●
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	252 ℓ (66.6 gal)	●	●
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Front (Rear)	-	-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

Safety Device		L500AW	L600AW
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○ (CE:●)	○ (CE:●)
Electric Device			
Call Light	1Color : ■	●	●
Call Light	2Color : ■ ■	○	○
Call Light	3Color : ■ ■ ■	○	○
Call Light & Buzzer	3Color : ■ ■ ■ B	○	○
Electric Cabinet Light		○	○
Remote MPG		-	-
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		●	●
AVR (Auto Voltage Regulator)		☆	☆
Transformer	40kVA	○	○
Auto Power Off		○	○
Measurement			
Q-Setter		-	-
Automatic Q-Setter		-	-
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		☆	☆
Linear Scale	X Axis	☆	☆
	Z Axis	☆	☆
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		○	○
Oil Skimmer (Only for Chip Conveyor)		☆	☆
MLQ (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	○	○
Auto Shutter (Only for Automatic System)		☆	☆
Sub Operation Pannel		☆	☆
Bar Feeder Interface		-	-
Bar Feeder (FEDEK)		-	-
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	-	-
Turret Work Pusher (For Automation)		☆	☆
Parts Conveyor		-	-
Hyd. Device			
Standard Hyd. Cylinder	Solid	●	●
Standard Hyd. Unit	35bar(507.6psi) / 30 ℓ (7.9gal)	●	●
S/W			
Machine Guidance (HW-MCG)		☆	☆
Energy Saving System (HW-ESS)		●	●
Tool Monitoring (HW-TM)		○	○
DNC software (HW-eDNC)		○	○
Machine Monitoring System (HW-MMS)		☆	☆
Conversational program (HW-DPRO)		○	○
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

SPECIFICATIONS

Standard & Optional

Spindle		LV800RAW/LAW	LV800AW-TT
Main SpindleHollow Chuck 3 Jaw		-	-
Main Spindle Solid Chuck 3 Jaw	18"	●	-
	21"	○	●
	24"	○	-
Standard Soft Jaw (1set)		●	●
Chuck Clamp Foot Switch		●	●
2 Steps Hyd. Pressure Device		●	●
Spindle Inside Stopper		-	-
5" Index		☆	☆
Cs-Axis (0.001")		-	-
2 Steps Chuck Foot Switch		○	○
Chuck Open/Close Confirmation Device		○ (CE: ●)	○ (CE: ●)
AL Wheel Processing Special Chuck	22.5"	☆	☆
Turret			
Tool Holder		●	●
Octagon Turret		-	-
Dodecagon Turret		●	●
Mill Turret		-	-
Straight Milling Head (Axial)	Collet Type, 1EA	-	-
Angular Milling Head (Radial)	Collet Type, 1EA	-	-
Straight Milling Head (Radial)	Collet Type, 1EA	-	-
Angular Milling Head (Axial)	Collet Type, 1EA	-	-
Straight Milling Head	Adaptor Type	-	-
Angular Milling Head	Adaptor Type	-	-
Boring Bar Sleeve		●	●
Drill Socket		●	●
U-Drill Holder (U-Drill Cap)		●	●
U-Drill Holder Sleeve		○	○
Swivel Head		-	-
Tail Stock & Steady Rest			
Manual Tail Stock		-	-
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Bed Flusing Coolant		●	●
Jet Coolant		○	○
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Through Spindle Coolant (Only for Special Chuck)		-	-
Thru Coolant for Live Tool		-	-
Chuck Air Blow (Upper Chuck)		○	○
Turret Air Blow		☆	☆
Air Gun		○	○
Through Spindle Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	6Bar (87psi)	●	●
	20Bar (290psi)	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	340 ℓ (89.8 gal)	●	●
	420 ℓ (110.9 gal)	-	-
Chip Conveyor (Hinge/Scraper)	Rear (Right)	○ / -	○ / -
	Rear (Left)	- / ○	- / ○
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆
Safety Device			
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○ (CE: ●)	○ (CE: ●)

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

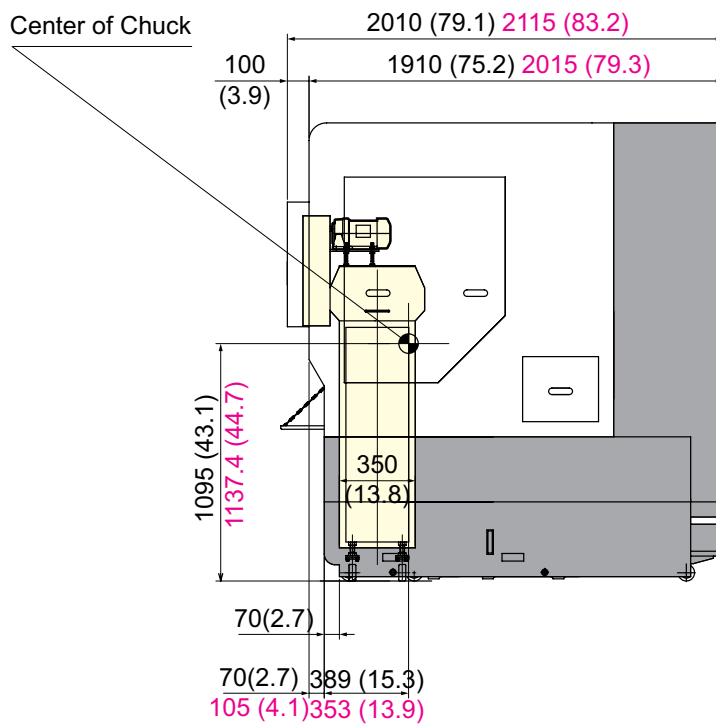
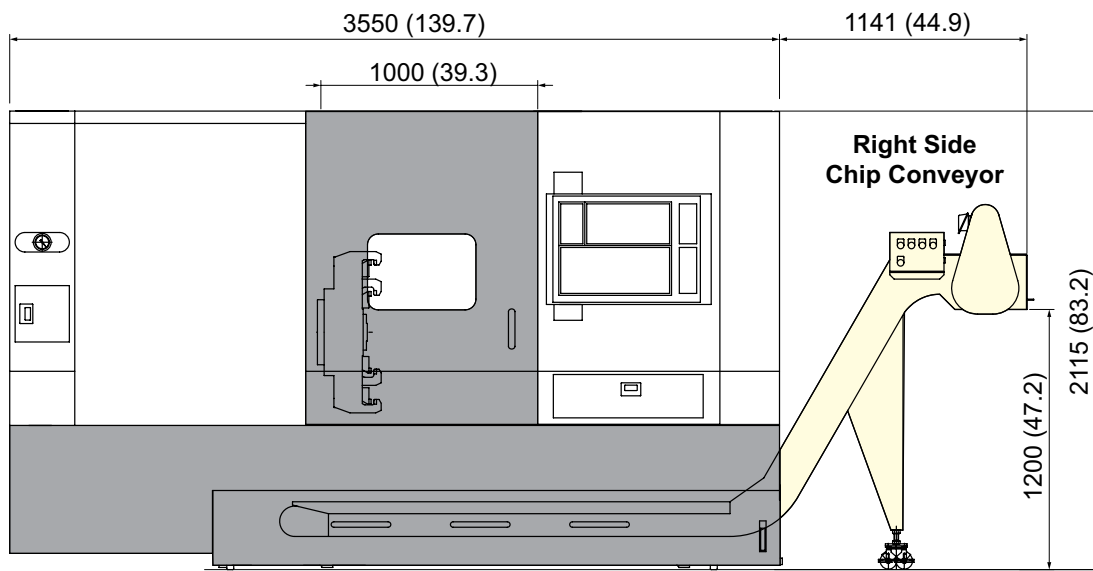
Electric Device		LV800RAW/LAW	LV800AW-TT
Call Light	1Color : ■	●	●
Call Light	2Color : ■ ■	○	○
Call Light	3Color : ■ ■ ■	○	○
Call Light & Buzzer	3Color : ■ ■ ■ B	○	○
Electric Cabinet Light		○	○
Remote MPG		-	-
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	40KVA	○	○
	60KVA	-	-
Auto Power Off		○	○
Measurement			
Q-Setter	Removable	○	○
Automatic Q-Setter		-	-
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		☆	☆
Linear Scale	X axis	○	○
	Z axis	○	○
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		○	○
Oil Skimmer (Only for Chip Conveyor)		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	☆	☆
Auto Shutter (Only for Automatic System)		-	-
Sub Operation Pannel		○	○
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Turret Work Pusher (For Automation)		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Solid	●	●
Standard Hyd. Unit	70bar(1,015psi) / 24 ℓ (6.3gal)	●	●
	70bar(1,015psi) / 50 ℓ (13.2gal)	-	-
S/W			
Machine Guidance (HW-MCG)		☆	☆
Energy Saving System (HW-ESS)		●	●
Tool Monitoring (HW-TM)		○	○
DNC software (HW-eDNC)		○	○
Machine Monitoring System (HW-MMS)		☆	☆
Conversational program (HW-DPRO)		○	○
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆
Special Level Sheet	For Air Chuck	☆	☆

SPECIFICATIONS

External Dimensions

unit : mm(in)

L500AW / L600AW

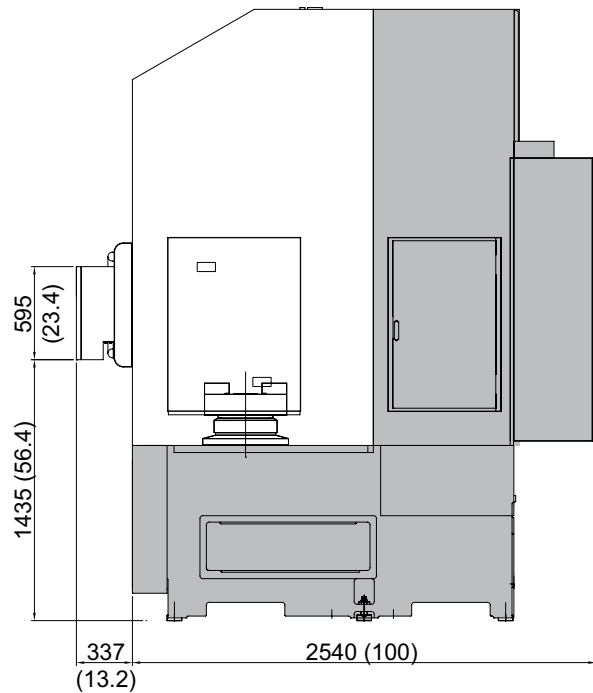
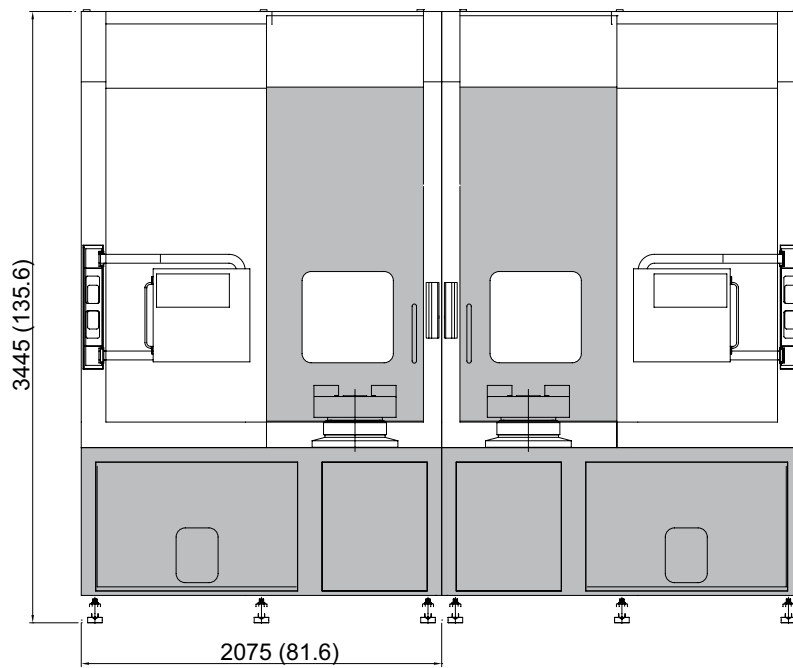


SPECIFICATIONS

External Dimensions

unit : mm(in)

LV800RAW/LAW



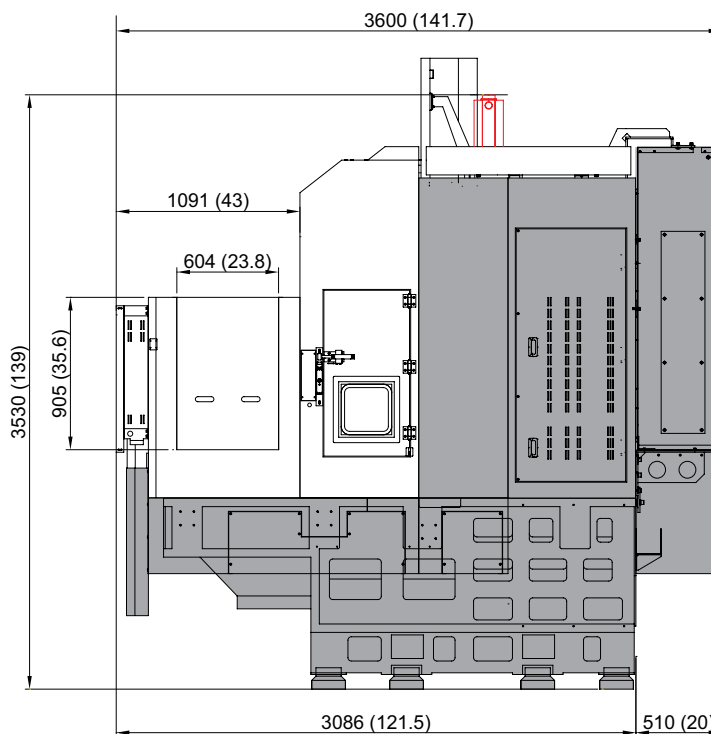
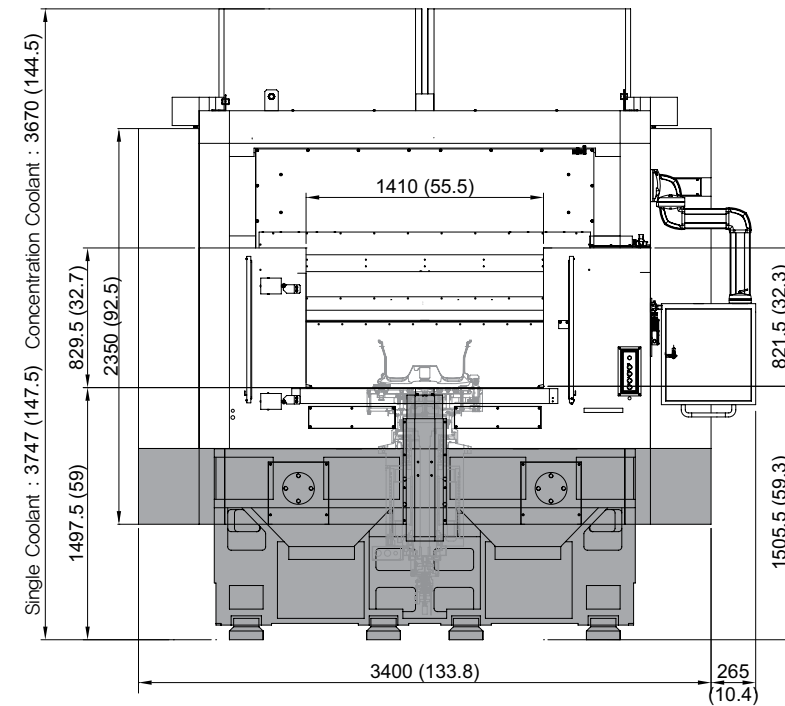
- ❖ Machine Width : 4,239mm (166.9") with Coolant Tank
- ❖ Machine Width : 4,798mm (188.9") with Chip Conveyor

SPECIFICATIONS

External Dimensions

unit : mm(in)

LV800AW-TT

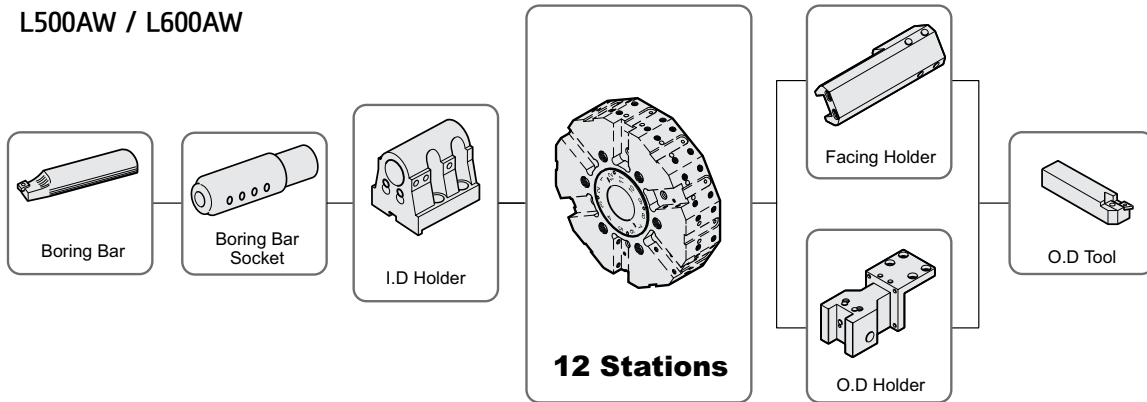


SPECIFICATIONS

Tooling System

unit : mm(in)

L500AW / L600AW



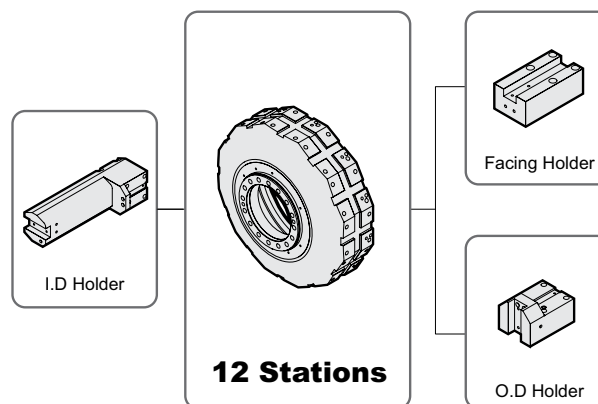
Tooling Parts Detail

ITEM			L500AW / L600AW	
			mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	1	1
	Facing Holder		1	1
Boring Holder	I.D Holder	Single	5	5
Socket	Boring	Ø32 (Ø1 1/4")	1	1

Tooling System

unit : mm(in)

LV800RAW/LAW



Tooling Parts Detail

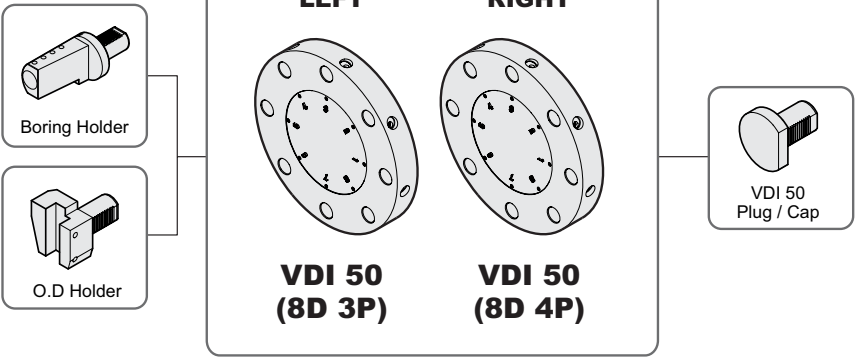
ITEM			LV800RAW/LAW	
			mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	2	2
		Long	2	2
	Facing Holder		2	2

SPECIFICATIONS

Tooling System

unit : mm(in)

LV800AW-TT



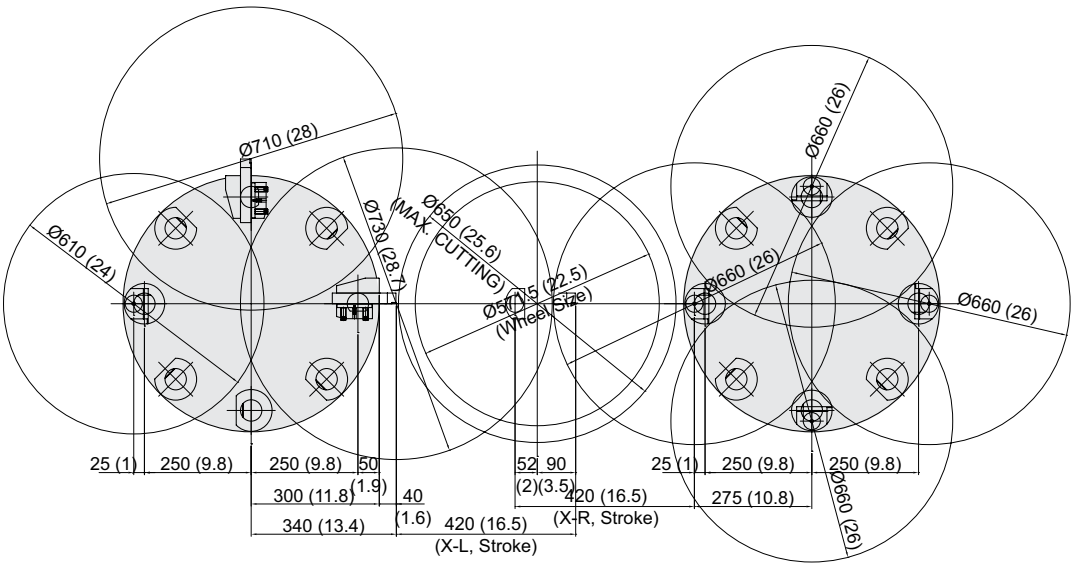
Tooling Parts Detail

ITEM			LV800AW-TT	
			mm Unit	inch Unit
Turning Holder	O.D Holder	Left	1	1
	Facing Holder		-	-
Boring Holder	I.D Holder	Right/Left	1/4	1/4
Plug	Cap	Right/Left	5/4	5/4

Interference

unit : mm(in)

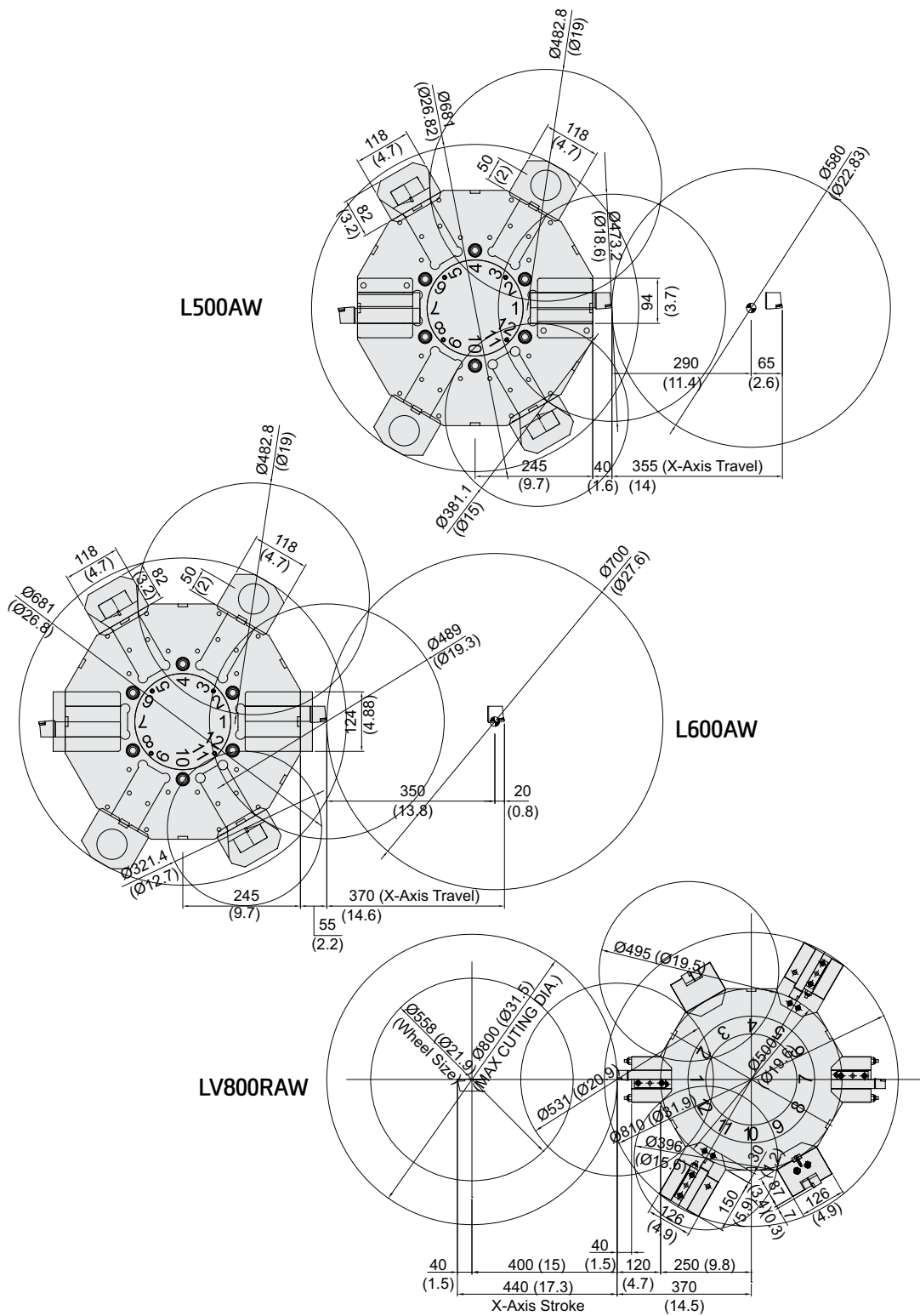
LV800RAW/LAW



SPECIFICATIONS

Interference

unit : mm(in)



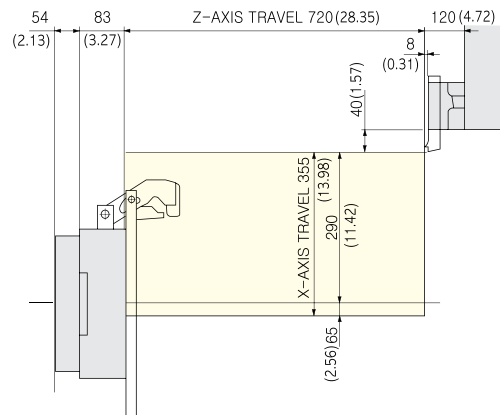
SPECIFICATIONS

Tooling Travel Range

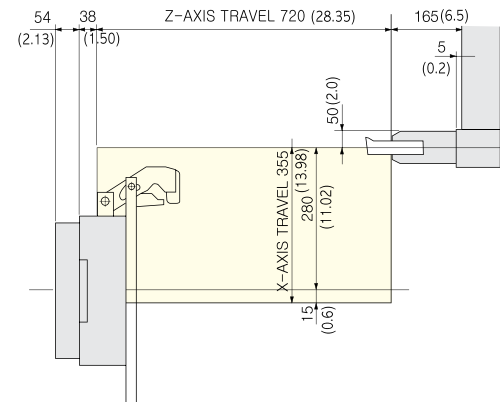
unit : mm(in)

L500AW

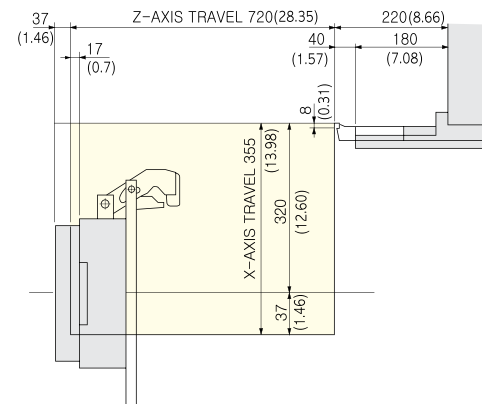
OD Tool Holder



ID Tool Holder

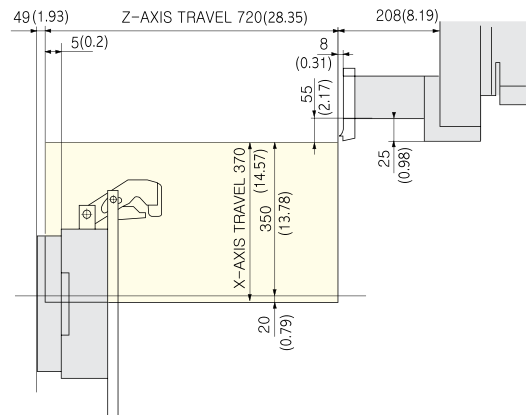


Face Tool Holder

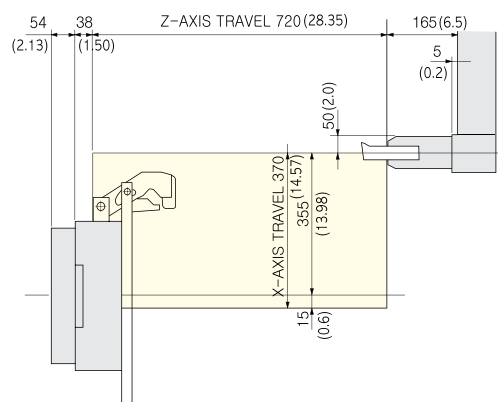


L600AW

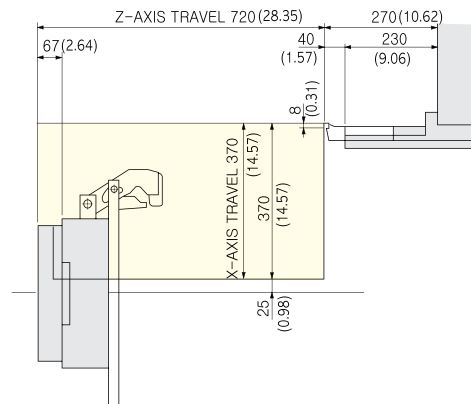
OD Tool Holder



ID Tool Holder



Face Tool Holder



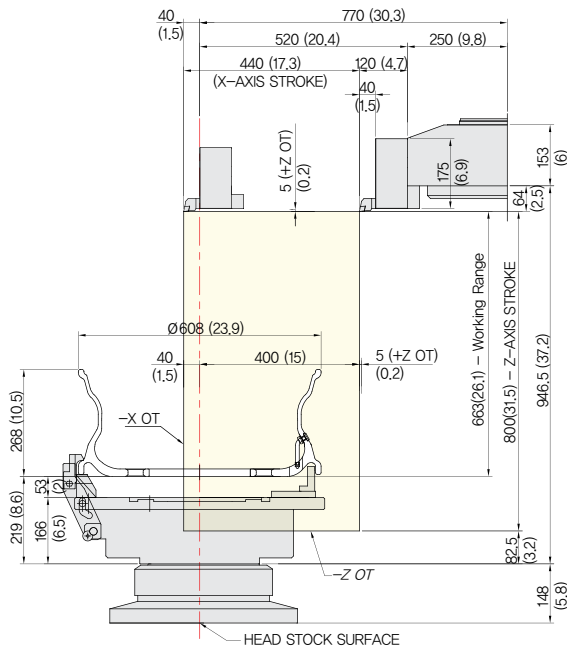
SPECIFICATIONS

Tooling Travel Range

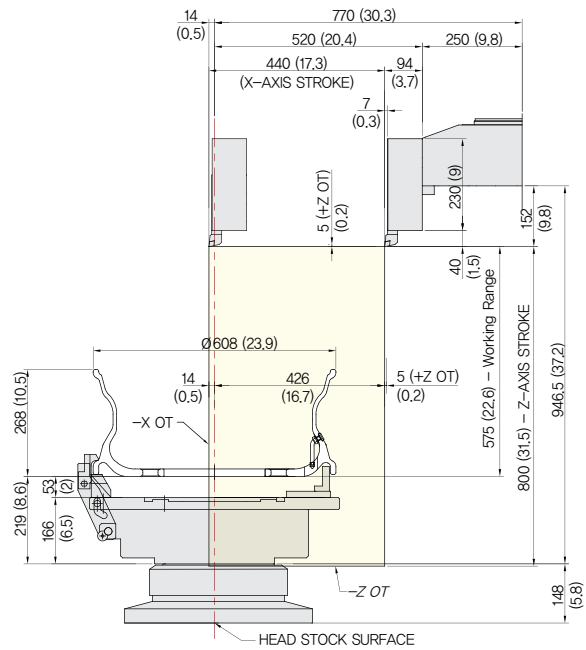
unit : mm(in)

LV800RAW/LAW

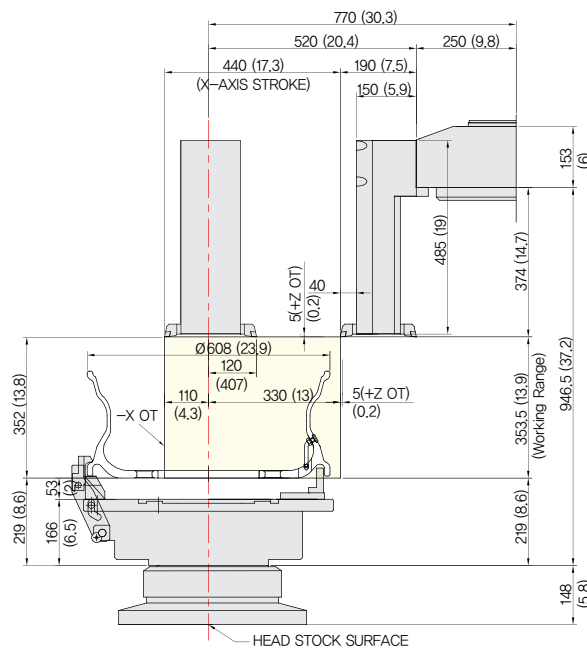
O.D Tool Holder



Facing Tool Holder



I.D Tool Holder

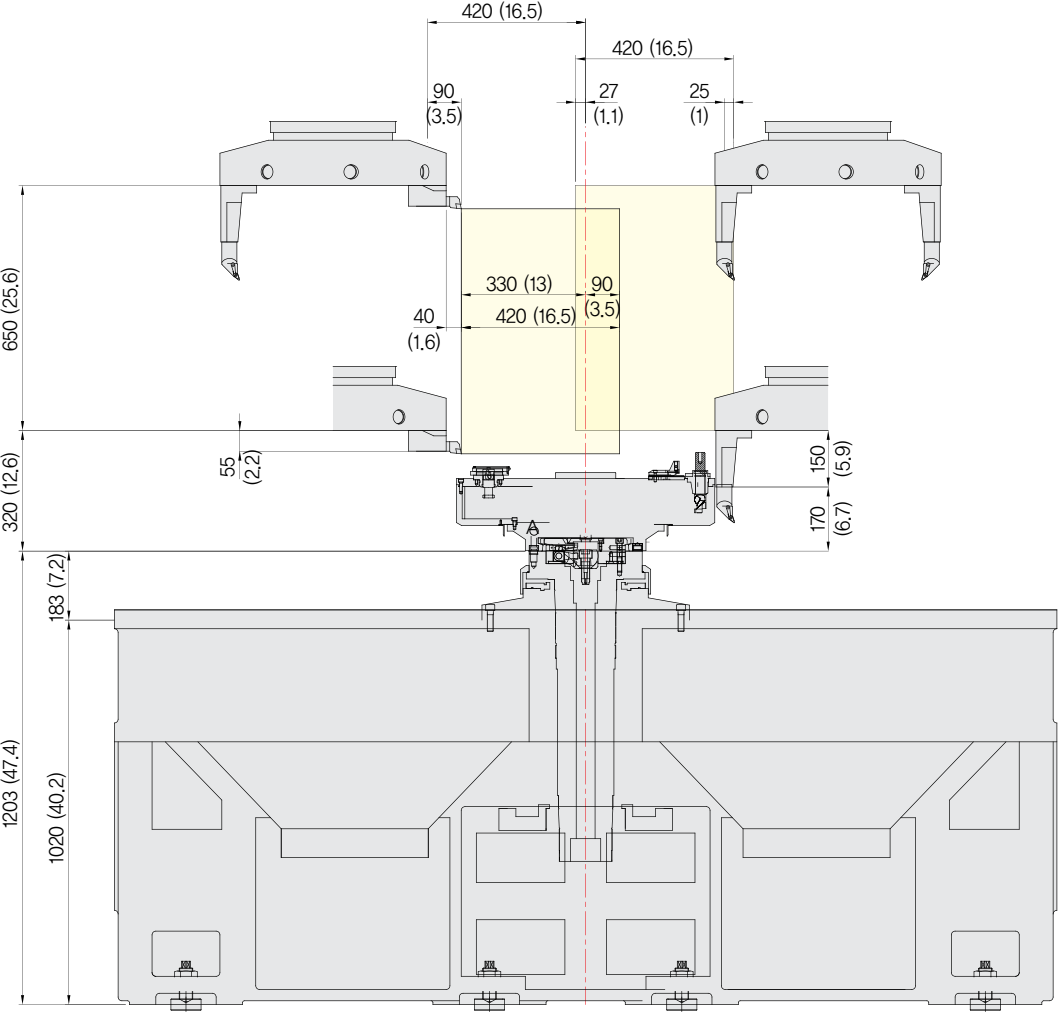


SPECIFICATIONS

Tooling Travel Range

unit : mm

LV800AW-TT



SPECIFICATIONS

Specifications

[] : Option { } : L600AW MF

ITEM			L500AW	L600AW
CAPACITY	Swing Over the Bed	mm(in)	Ø750 (29.5")	Ø850 (33.5")
	Swing Over the Carriage	mm(in)	Ø480 (18.9")	Ø600 (23.6")
	Max. Turning Length	mm(in)	710 (28")	
SPINDLE	Std. Wheel Size	inch	17"	17"
	Max. Wheel Size	inch	20" (Recommendation 17")	24" (Recommendation 17")
	Spindle Bore	mm(in)	Ø102 (4")	Ø102 (4") {Ø87 (3.4")}
	Spindle Speed (rpm)	r/min	3,000	3,000 {3,000}
	Motor (Max/Cont.)	kW(HP)	37/30 (49.6/40.2)	37/30 (49.6/40.2) {30/22 (40.2/29.5)}
	Torque (Max/Cont.)	N·m(lbf·ft)	460.7/373.5 (339.8/275.5)	460.7/373.5 (339.8/275.5) {600/353 (442.5/260.4)}
	Spindle Type	-	BELT	
	Spindle Nose	-	A2-8	A2-8 {A2-8}
	Bearing Inner Dia. (Front)	mm(in)	Ø150 (5.9")	Ø150 (5.9") {Ø130 (5.1")}
FEED	Travel	X-Axis mm(in)	355 (65+290) (14" (2.6"+11.4"))	
		Z-Axis mm(in)	720 (28.3")	
	Rapid Traverse Rate (X/Z)	m/min(ipm)	20/24 (787/945)	
	Slide Type	-	BOX GUIDE	
TURRET	No. of Tools	EA	12	
	Tool Size	OD mm(in)	□ 32 (1.3")	□ 32 (1.3") {□ 25(1")}
		ID mm(in)	Ø63 (2.5")	
	Indexing Time	sec/step	0.3	
TANK CAPACITY	Coolant Tank	ℓ (Gal)	252 (66.6)	
	Lubricating Tank	ℓ (Gal)	1.8 (0.5)	
POWER SUPPLY	Electric Power Supply	kVA	36	36 {38}
	Thickness of Power Cable	Sq	Over 35	
	Voltage	V/Hz	220/60 (200/50*)	
MACHINE	Floor Space (L×W)	mm(in)	3,550×2,010 (139.8"×79.1")	3,550×2,115 (139.8"×83.3")
	Height	mm(in)	2,115 (83.3")	
	Weight	kg(lb)	6,600 (14,551)	6,800 (14,991)
NC	Controller	-	HW FANUC i Series	HW FANUC i Series {FANUC 32i-B}

*) Using 50Hz voltage instead of 60Hz may lower the output of motors. (excluding servo motors and inverter motors)
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Specifications

[] : Option

ITEM			LV800RAW/LAW	LV800AW-TT
CAPACITY	Swing Over the Bed	mm(in)	Ø890 (35")	Ø760 (29.9")
	Max. Turning Dia.	mm(in)	Ø800 (31.5")	Ø650 (25.6")
	Max. Turning Length	mm(in)	800 (31.5")	650 (25.6")
SPINDLE	Chuck Size	inch	25"	22.5"
	Spindle Bore	mm(in)	Ø100 (3.9")	-
	Spindle Speed (rpm)	r/min	2,000	3,000
	Motor Output (Max/Cont.)	kW(HP)	45/37 (60.3/49.6)	55/37 (73.8/49.6)
	Torque (Max/Cont.)	N·m(lbf·ft)	530/436 (390.9/321.6)	495/294 (365.1/216.8)
	Spindle Type	-	Belt	Built-in
	Spindle Nose	-	A2-11	A2-11
	C Axis Indexing Time	mm(in)	-	-
FEED	Travel(X/Z)	mm(in)	440/800 (17.3"/31.5")	420/650 (16.5"/25.6")
	Rapid Traverse Rate (X/Z)	m/min(ipm)	20/20 (787/787)	30/30 (1,181/1,181)
	Slide Type	-	Box Guide	Roller LM Guide
TURRET	No. of Tools	EA	12	8+8
	Tool Size	OD	□ 25 (1")	□ 25 (1")
		ID	-	Ø40 (1.6")
	Indexing Time	sec/step	0.2	0.35
LIVE TOOL	Motor Output(Max/Cont.)	kW(HP)	-	-
	Max. Speed(rpm)	r/min	-	-
	Torque (Max./Cont.)	N·m(lbf·ft)	-	-
	Collet Size	mm(in)	-	-
	Live Tool Type	-	-	-
TANK CAPACITY	Coolant Tank	ℓ (Gal)	700 (184.9)	950 (251)
	Lubricating Tank	ℓ (Gal)	2 (0.5)	3 (0.8)
POWER SUPPLY	Electric Power Supply	kVA	36	76
	Thickness of Power Cable	Sq	Over 35	-
	Voltage	V/Hz	220/60 (200/50*)	220/60 (200/50*)
MACHINE	Floor Space (L×W)	mm(in)	2,075×2,877 (81.7"×113.3")	3,400×3,600 (133.9"×141.7")
	Height	mm(in)	3,445 (135.6")	3,695 (145.5") : Concentration Coolant / 3,747 (147.5") : Single Coolant
	Weight	kg(lb)	11,000 (24,251)	19,500 (42,990)
PC	Controller	-	FANUC 32i-B	FANUC 32i-B [HW FANUC i Series]

*) Using 50Hz voltage instead of 60Hz may lower the output of motors. (excluding servo motors and inverter motors)
Specifications are subject to change without notice for improvement.

CONTROLLER

HYUNDAI WIA FANUC i Series (L500AW/600AW)

Control function / Screen display	
	Max. 4 Axis
	X, Z axis
Control axis number	X, Z, C axis (M type machine)
	X, Z, Y, C axis (Y type machine)
	X, Z, B, C axis (MS type machine)
Simultaneous control axis number	2axes / Linear and circular (Max. 4axes)
Min. input unit	X, Z axis : 0.001mm (0.0001")
	C axis : 0.001 deg.
Min. increment	X, Z axis : 0.001mm (0.0001")
	C axis : 0.001 deg.
High speed HRV control	
Inch/metric conversion	G20 / G21
Interlock	Each axis / All axis
Machinelock	Full axis
Emergency stop	
Stroke check 1	Over-travel
Stroke check 2	
Stroke check 3	
Follow up	
Sub off	
Backlash compensation	+/- 0~9999 Pulse (Rapid traverse & cutting feed)
Position switch	
Fault load detection	Back spin torque limiter (BST)
High resolution transfer control (HRM)	
LCD / MDI	8.4" Color LCD
Operation	
Auto handling (memory)	
MDI handling	
Search function	Sequence, Program
Program re-start	
Preventive function for mis-handling	
Buffer registration	
Program check function	Dry run, Program check
Single block	
Feed function	
Manual jog feed	Rapid transfer, Jog, Handle
Manual Handle Scale	x1, x10, x100
Feed command	Direct command for F code feed
Feed override	0~200% (10% units)
Jog override	0~2,000 mm/min [79 ipm]
Rapid transfer override	F1, F5, F25 / F50, F100%
Override release	
Transfer/minute, transfer/rpm	
Program input and interpolation function	
Nano interpolation	Positioning/Straight/Arc (G00/G01/G02/G03)
Dwell function	G04, 0~9999.9999 sec
Threading retract	
Variable lead threading	
Return of first zero point	G28, manual
Decimal number entering	
Plain selection	G17, G18, G19
Work coordinate selection	G52 to G59
Manual absolute	"ON" fixed
Drawing dimension direct input programming	Included chamfering / Corner R
G code system	A/B/C
Programmable data input	G10
Sub program call	10 folds nested
Custom macro B	
Custom macro variable addition	#100 to #199, #500 to #999
Multiple repetitive cycles	
Multiple repetitive cycles II	
Lathe fixed cycle	

Sub / Main spindle function	
M-Code function	M4 digit number
M-Code function lock	
Lock sp. speed command	S + 4 digit number, binary number output
Main sp. constant control	G96, G97
Spindle speed override	50% ~ 150% (10% unit)
Spindle position decision	
Rigid tapping	
Tool function / Tool compensation	
Tool function	T2 + 2
Tool offset quantity	64 pairs
Tool offset	
Tool nose radius compensation	G40, G41, G42
Configuration/wear compensation	
Direct input of measuring tool compensation B	
Tool life management	
Data input, output and editing function	
Input/output interface	RS232C
Memory card input and output	
Program storing capacity	1280m/512kb
Program registration quantity	Max. 500 programs
Memory lock	
Background edit	
Additional expandable edit	NC program copy, move, change
Screen, diagnosis and setting function	
Self diagnosis function	
Historic screen	Alarm and handling screen
Help function	
Outside message	
Operation time/counter display	
Actual sp. speed, T code display	
Actual machining feed rate display	
Handling monitor screen	Rod meter light
Graphic screen	
Spindle/servo setting screen	
Selection of random 5 EA	
LCD screen save	Screen saver
Auto data backup	
Function according with machine specification	
Cs contouring control	Turn mill
Stored pitch error compensation	Turn mill
Cylindrical interpolation	Turn mill
Canned cycles for drilling	Turn mill
spindle orientation expansion	Turn mill, Sub spindle
Spindle synchronous control	Sub spindle
Torque control	Sub spindle
Y axis offset	Y type machine
Angular axis control	Y type machine
Option	
High speed ethernet	100 Mbps (Option board is required)
Optional block skip	9 ea
3rd & 4th reference point return	
Data Server	1GB
Polygon turning	
Helical interpolation	
Dynamic graphic display	
Protection of data at 8 levels	
Manual guide i	Conversational Programming(10.4" Color LCD)

Figures in inch are converted from metric values.

The FANUC controller specifications are subject to change based on the policy of company CNC supplying.

CONTROLLER

FANUC 32i-B (L600AW MF | LV800RAW/LAW | LV800AW-TT)

[] : Option

Controlled axis / Display / Accuracy Compensation	
Control axes	2 axes (X, Z) / 3 axes (X, Z, C) / 4 axes (X, Z, Y, C)
Simultaneously controlled axes	5 axes (X, Z, B, C, A) / 6 axes (X, Z, Y, B, C, A)
Designation of spindle axes	2 axes [Max. 4 axes]
Least setting Unit	4 axes (1 path), 6 axes (2 path Total) X, Z, Y, B axes : 0.001 mm (0.0001 inch) C, A axes : 0.001 deg
Least input increment	X, Z, Y, B axes : 0.001 mm (0.0001 inch) C, A axes : 0.001 deg
Inch / Metric conversion	G20 / G21
High response vector control	
Interlock	All axes / Each axis
Machine lock	All axes
Backlash compensation	± 0 ~ 9999 pulses (Rapid traverse / Cutting feed)
Position switch	
LCD / MDI	10.4 inch color LCD
Feedback	Absolute motor feedback
Stored stroke check 1	Over travel
Stored stroke check 2, 3	
PMC axis control	
Operation	
Automatic operation (Memory)	
MDI operation	
DNC operation	Needed DNC software / CF card
Program restart	
Wrong operation prevention	
Program check function	Dry run, Program check
Single block	
Search function	Program Number / Sequence Number
Interpolation functions	
Nano interpolation	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Exact stop mode	Single : G09, Continuous : G61
Dwell	G04, 0 ~ 9999.999 sec
Skip	G31
Reference position return	1st reference, G28 / 2nd reference, G30 Ref. position check, G27
Thread synchronous cutting	
Thread cutting retract	
Variable lead thread cutting	
Multi / Continuous threading	
Feed function / Acc. & Dec. control	
Manual feed	Rapid traverse Jog : 0~2,000 mm/min (79 ipm) Manual handle : x1, x10, x100 pulses Reference position return
Cutting Feed command	Direct input F code
Feedrate override	0 ~ 200% (10% Unit)
Rapid traverse override	F1%, F25%, 50%, F100%
Override cancel	
Feed per minute	G98
Feed per revolution	G99
Look-ahead block	1 block
Program input	
Tape Code	EIA / ISO
Optional block skip	1 ea
Absolute / Incremental program	G90 / G91
Program stop / end	M00, M01 / M02, M30
Maximum command unit	± 999,999.999 mm (± 99,999.9999 inch)
Plane selection	X-Y, G17 / Z-X, G18 / Y-Z, G19
Workpiece coordinate system	G52, G53, 6 pairs (G54 ~ G59)
Manual absolute	Fixed ON
Programmable data input	G10
Sub program call	10 folds nested
Custom macro	#100 ~ #149, #500 ~ #549
G code system	A
Programmable mirror image	G51.1, G50.1
G code preventing buffering	G4.1
Multiple repetitive cycles I, II	

Program input	
Canned cycle for turning	
Manual Guide i	Conversational auto program
Auxiliary function / Spindle speed function	
Auxiliary function	M & 4 digit
Level-up M Code	High speed / Multi / Bypass M code
Spindle speed function	S & 4 digit, Binary output
Spindle override	0% ~ 150% (10% Unit)
Multi position spindle orientation	M19
Rigid tapping	
Constant surface speed control	G96, G97
Tool function / Tool compensation	
Tool function	T & 2 digit + Offset 2 digit
Tool life management	
Tool offset pairs	32 pairs
Tool nose radius compensation	G40, G41, G42
Geometry / Wear compensation	
Direct input of offset measured B	
Editing function	
Part program storage size	640m (256KB)
No. of registerable programs	500 ea
Program protect	
Background editing	
Extended part program editing	Copy, move and change of NC program
Memory card program edit	
Data input / output & Interface	
I/O interface	RS 232C serial port, CF card, USB memory Embedded Ethernet interface
Screen hard copy	
External message	
External key input	
External workpiece number search	
Automatic data backup	
Setting, display and diagnosis	
Self-diagnosis function	
History display & Operation	Alarm & Operator message & Operation
Run hour / Parts count display	
Maintenance information	
Actual cutting feedrate display	
Display of spindle speed / T code	
Graphic display	
Operating monitor screen	Spindle / Servo load etc.
Power consumption monitoring	Spindle & Servo
Spindle / Servo setting screen	
Multi language display	Support 20 languages
Display language switching	Selection of 5 optional Languages
LCD Screen Saver	Screen saver
Unexpected disturbance torque	BST (Back spin torque limit)
Function for machine type	
Cs contour control (C & A axes)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polar coordinate interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Cylindrical interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Canned cycle for drilling	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Spindle orientation expansion	MS, SY TTS, TTMS, TTSY
Spindle synchronous control	MS, SY TTS, TTMS, TTSY
Torque control	MS, SY TTS, TTMS, TTSY
Y axis offset	Y, SY, TTSY
Arbitrary angular control	Y, SY, TTSY
Composite / Superimposed control	MS, SY TTS, TTMS, TTSY
Balance cutting	MS, SY TTS, TTMS, TTSY
Option	
Additional optional block skip	9 ea
Fast ethernet	Needed option board
Data server	Needed option board
Protection of data at 8 levels	
Tool offset pairs	64 pairs / 99 pairs / 200 pairs
Part program storage size	1280 m (512KB) / 2560m (1MB)
Polygon turning (2 Spindles)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Helical interpolation	
Dynamic graphic display	
Direct drawing dimension program	Including Chamfering / Corner R

Figures in inch are converted from metric values.

The FANUC controller specifications are subject to change based on the policy of company CNC supplying.

GLOBAL NETWORK



HEADQUARTER

Changwon Technical Center / R&D Center / Factory

153, Jeongdong-ro, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, Korea (Zip Code : 51533)

TEL : +82 55 280 9114 FAX : +82 55 282 9680

Uiwang Technical Center / R&D Center

37, Cheoldobangmulgwan-ro, Uiwang-si, Gyeonggi-do,
Korea (Zip Code : 16082)

TEL : +82 31 596 8209 Fax : +82 55 210 9804

OVERSEAS OFFICES

HYUNDAI WIA Machine Tools America

265, Spring Lake Drive, Itasca, IL, 60143

TEL : +1 630 625 5600

FAX : +1 630 625 4733

Jiangsu HYUNDAI WIA

Company No.6 Fenghuang Road,
Fenghuang Town, Zhangjijagang City,
Jiangsu province, China

TEL : +86 512 5672 6808

FAX : +86 512 5671 6960

Chengdu Branch Office

NO.508 Room, B Block, AFC Plaza, NO.88
Jiaozi Road, High-tech Zone, Chengdu,
China

TEL : +86 028 8665 2985

FAX : +86 028 8665 2985

HYUNDAI WIA Machine Tools Europe

Kaiserleipromenade 5, 63067 Offenbach,
Germany

TEL : +49 69271 472 701

FAX : +49 69271 472 719

Hyundai WIA Machine Tools China Shanghai Branch Office

1-3F, Bldg6, No.1535 Hongmei Road,
Xuhui District, Shanghai, China

TEL : +86 021 6427 9885

FAX : +86 021 6427 9890

Qingdao Branch Office

Room 1207, Cai Fu Building, 182-6 Haier
Middle Road, Qingdao, China

TEL : +86 532 8667 9334

FAX : +86 532 8667 9338

Raunheim Service Center Raunheim R&D Center

Frankfurter. 63, 65479 Raunheim,
Germany

TEL : +49 6142 9256 111

FAX : +49 6142 9256 100

Beijing Branch Office

Floor 14, Zhonghangji Plaza B, No.15
Ronghua South Road, BDA Dist., Daxing
Dist., Beijing, China 100176

TEL : +86 010 8453 9850

FAX : +86 010 8453 9853

Wuhan Office

306-2, A Tower, Jiayu Gpmggian, No12
Chuangye Road, Economic Development
Zone, Wuhan, Hubei, China

TEL : +86 027 5952 3256

FAX : +86 027 5952 3256

India Branch Office

#4/169, Rajiv Gandhi Salai, (OMR),
Kandanchavadi, Chennai-600 096,
Tamilnadu, India

TEL: +91-44-3290-1719

Guangzhou Branch Office

Room 311, Unit 1-3, POLY TAL TU WUN,
Hanxi Avenue, Panyu District, Guangzhou,
China

TEL : +86 020 8550 6595

FAX : +86 020 8550 6597

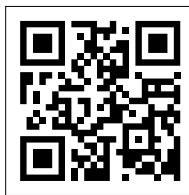
Chongqing Office

Room 951, #3, Jinrongcheng T3, Jiangbei,
Chongqing, China

TEL : +86 23 6701 2970



LV800RAW Movie



LV800AW-TT 3D Movie



<http://machine.hyundai-wia.com>

Head Office & Factory

153, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do **Tel** +82 55 280 9500

Overseas Sales Team

16F, 37, Cheoldobangmulgwan-ro, Uiwang-si, Gyeonggi-do **Tel** +82 31 593 8173

HYUNDAI WIA Machine Tools America

265 Spring Lake Drive, Itasca, IL, 60143 **Tel** +1 (630) 625 5600 **Fax** +1 (630) 625 4733

HYUNDAI WIA Machine Tools Europe

Kaiserleipromenade 5, D-63067 Offenbach, Germany **Tel** +49 69271 472 701 **Fax** +49 69271 472 719

India Branch Office

#4/169, Rajiv Gandhi Salai, (OMR), Kandanchavadi, Chennai-600 096, Tamilnadu, India **Tel** +91 44 3290 1719
